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March 1, 2023

Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
Mail Code 2242-A
1200 Pennsylvania Ave., N.W.
William Jefferson Clinton Building
Room 1119
Washington, DC 20460-0001

Re: Consent Decree First Semi-Annual Report
United States v. Chevron Phillips Chemical Company LP
Consent Decree (Civil Action No. 4:22-cv-737, DOJ Case No. 90-5-2-1-11288)

To Whom It May Concern:

Pursuant to Section VIII, Paragraphs 54-59 of the Consent Decree, Chevron Phillips Chemical Company LP (CPChem) hereby submits the first Semi-Annual Report for the period of June 2, 2022 – December 31, 2022. See the enclosed *Attachment: First 2022 Consent Decree Semi-Annual Report*.

Additionally, pursuant to Section XVI Paragraphs 108-110 of the Consent Decree, CPChem also hereby gives notice of a change to its designated notice recipient to the following:

Cheryl-Lynne Davis
Assistant General Counsel, EHSS and Manufacturing
Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380
patric@cpchem.com

Please contact Jolanda Allison at CPCRAFlareConsentDec@cpchem.com or (832)813-4128 if there are any questions or additional information needed regarding this submittal.

Sincerely,

Cheryl-Lynne Davis
Assistant General Counsel, EHSS and Manufacturing



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cc:

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ATTACHMENT:

CONSENT DECREE
FIRST 2022 SEMI-ANNUAL REPORT



United States v. Chevron Phillips Chemical Company LP

Consent Decree (Civil Action No.4:22-cv-737)

Consent Decree

First Semi-Annual Report

Period: June 2, 2022 – December 31, 2022

March 1, 2023

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1.0 INTRODUCTION

Last year, the United States and Chevron Phillips Chemical Company LP (CPChem) settled allegations by the Environmental Protection Agency (EPA) of non-compliance under the Clean Air Act relating to flaring operations at three of CPChem's chemical manufacturing plants: Cedar Bayou, Port Arthur, and Sweeny, Texas (collectively, the "Covered Plants"). Terms of the settlement are set forth by Consent Decree became effective on June 2, 2022 when the Decree was entered in the federal Southern District Court of Texas. *See United States v. Chevron Phillips Chemical Company LP (Civil Action No.4:22-cv-737)*.

The Covered Flares at the Covered Plants are as follows:

Cedar Bayou Plant

- CB-701: Ethylene Unit 1592 (EU 1592)
- CB-710: Ethylene Unit 1592 (EU 1592) Acetylene Recovery Unit
- FS-541: Polyethylene Unit 1796 (PEU 1796)
- FS-9006: Polyethylene Unit 1799 (PEU 1799)
- Z-101: Normal Alpha Olefins Unit 1797 (NAOU 1797)
- Z-251: Polyalphaolefins Unit 1795/1-Hexene Unit 1891 (PAOU 1795/HU 1891)
- Z-1101: Normal Alpha Olefins Unit 1798 (NAOU 1798)
- X-901: Polyethylene Unit 1792 (PEU 1792)

Port Arthur Plant

- Flare 24: Ethylene Unit 1544 (EU 1544)
- Flare 40: Cyclohexane Unit 1741 (CU 1741)

Sweeny Plant

- Flare 4: Natural Gas Liquids Unit 10D, Propane/Propylene Splitter Unit 18 (U10D-NGL, U18)
- Flare 8: Natural Gas Liquids Units 10ABC (U10ABC-NGL)
- Flare 9: Natural Gas Liquids Units 10ABC (U10ABC-NGL)
- Flare 10: Ethylene Unit 22 (U22)
- Flare 12: Ethylene Unit 22 (U22)
- Flare 14: Ethylene Unit 24 (U24)
- Flare 20: Ethylene Unit 24 (U24)
- Flare 22: Ethylene Unit 33 (U33)

Pursuant to Consent Decree Paragraph 54, CPChem is hereby submitting the first Semi-Annual Report covering the period of June 2, 2022 – December 31, 2022 (first full half year after the effective date).

2.0 COMPLIANCE REQUIREMENTS IMPLEMENTATION STATUS

Consent Decree Paragraph 54.a requires CPChem to provide a description of the status of work performed and progress made toward implementing the requirements of Section V (Compliance Requirements) at the Covered Plants during the Semi-Annual Period.

Cedar Bayou Plant

The status of the Section V (Compliance Requirements) for the Covered Flares at the Cedar Bayou Plant is as follows:

- CB-701, FS-541, X-901, Z-101, Z-251: Completed implementation as of June 2, 2022 as required by Paragraph 18 and Appendix 1.1.
- Z-1101, CB-710, FS-9006: Completed implementation as of February 28, 2023 as required by Paragraph 18 and Appendix 1.1.
- Flare Gas Recovery System (FGRS): Construction is in progress and will be completed no later than September 30, 2023, as required by Paragraph 38.a. and Appendix 1.1.

Port Arthur Plant

The status of the Section V (Compliance Requirements) for the Covered Flares at the Port Arthur Plant is as follows:

- Flare 24, Flare 40: Completed implementation as of June 2, 2022 as required by Paragraph 18 and Appendix 1.1.

Sweeny Plant

The status of the Section V (Compliance Requirements) for the Covered Flares at the Sweeny Plant is as follows:

- Flares 4, 8, 9, 10, 12, 14, 20, 22: Completed implementation as of June 2, 2022 as required by Paragraph 18 and Appendix 1.1.

3.0 PROBLEMS ENCOUNTERED OR ANTICIPATED MEETING THE COMPLIANCE REQUIREMENTS

Consent Decree Paragraph 54.b requires CPChem to provide a description of any problems encountered or anticipated in meeting the requirements of Section V (Compliance Requirements) at the Covered Plants during the Semi-Annual Period.

Cedar Bayou Plant

Problems encountered or anticipated in meeting the requirements in Section V (Compliance Requirements) for the Covered Flares at the Cedar Bayou Plant included:

Flare(s)	Description of Anticipated or Encountered Problems Meeting the Compliance Requirements	Implemented or Proposed Solution
CB-701, FS-541, X-901, Z-101, Z-251, Z-1101, CB-710, FS-9006	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.

Port Arthur Plant

No problems were encountered or anticipated in meeting the requirements in Section V (Compliance Requirements) for the Covered Flares at the Port Arthur Plant.

Sweeny Plant

Problems encountered or anticipated in meeting the requirements in Section V (Compliance Requirements) for the Covered Flares at the Sweeny Plant included:

Flare(s)	Description of Anticipated or Encountered Problems Meeting the Compliance Requirements	Implemented or Proposed Solution
4, 8, 9, 10, 12, 14, 20, 22	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.
4	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
8	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.

4.0 PERMITTING STATUS PERTAINING TO THE CONSENT DECREE

Consent Decree Paragraph 54.c requires CPChem to provide a description of the status of any permit applications, including a summary of all permitting activity, pertaining to the Consent Decree for the Covered Plants during the Semi-Annual Period.

Cedar Bayou Plant

No permitting activity, including submission of any permit applications, occurred related to the Consent Decree at the Cedar Bayou Plant.

Port Arthur Plant

No permitting activity, including submission of any permit applications, occurred related to the Consent Decree at the Port Arthur Plant.

Sweeny Plant

No permitting activity, including submission of any permit applications, occurred related to the Consent Decree at the Sweeny Plant.

5.0 UPDATED WGMP SUBMITTALS

Consent Decree Paragraph 54.d requires CPChem to provide any updated Waste Gas Minimization Plan (WGMP) as required by Paragraph 30 for the Covered Plants during the Semi-Annual Period.

Cedar Bayou Plant

No WGMP is required for submittal. An updated WGMP is not required until after the initial WGMP has been submitted, which is no later than June 2, 2023, as specified in Appendix 1.1 for the Covered Flares at the Cedar Bayou Plant.

Port Arthur Plant

No WGMP is required for submittal. An updated WGMP is not required until after the initial WGMP has been submitted, which is no later than June 2, 2023, as specified in Appendix 1.1 for the Covered Flares at the Port Arthur Plant.

Sweeny Plant

No WGMP is required for submittal. An updated WGMP is not required until after the initial WGMP has been submitted, which is no later than June 2, 2023, as specified in Appendix 1.1 for the Covered Flares at the Sweeny Plant.

6.0 SUMMARY OF INTERNAL FLARING INCIDENT REPORTS

Consent Decree Paragraph 54.e requires CPChem to provide a summary of internal flaring incident reports (required by Paragraph 33) for the Covered Plants and that occurred during the Semi-Annual Period.

Cedar Bayou Plant

A summary of internal flaring incident reports is not required to be submitted for the Covered Flares at the Cedar Bayou Plant. Reportable Flaring Incident investigations must commence no later than June 2, 2023, as specified in Appendix 1.1.

Therefore, no reports are required for this Semi-Annual Period.

Port Arthur Plant

A summary of internal flaring incident reports is not required to be submitted for the Covered Flares at the Port Arthur Plant. Reportable Flaring Incident investigations must commence no later than June 2, 2023, as specified in Appendix 1.1.

Therefore, no reports are required for this Semi-Annual Period.

Sweeny Plant

A summary of internal flaring incident reports is not required to be submitted for the Covered Flares at the Sweeny Plant. Reportable Flaring Incident investigations must commence no later than June 2, 2023, as specified in Appendix 1.1.

Therefore, no reports are required for this Semi-Annual Period.

7.0 SUMMARY OF OPERATIONS AND COMPLIANCE

7.1 Summary of Instrument Downtime

Consent Decree Paragraph 54.f.(1)-(2) requires CPChem to provide a summary of Instrument Downtime claimed pursuant to Paragraph 45 (NHV Standards) per Covered Flare for the Covered Plants. The following information is provided in the attached *Appendix A: Instrument Downtime*:

- Total number of hours of Instrument Downtime, expressed as both an absolute number and percentage of time, that the Covered Flare was In Operation and Capable of Receiving Sweep, Supplemental, and/or Waste Gas during the Semi-Annual Period;
- Where the total number of hours of Instrument Downtime for the Covered Flare exceeds 5% of the time during the Semi-Annual Period, the details of the periods of downtime including the date, time, and cause (including Malfunction or maintenance) are provided. If the cause is asserted to be a Malfunction, the corrective action is provided.

7.2 Summary of NHV Standards Non-Applicability

For each Covered Flare, Consent Decree Paragraph 54.f.(3) requires CPChem to provide a summary of the total number of hours and a percentage of time that the Covered Flare was In Operation, in which the requirements of Paragraphs 43-44 (NHV Standards, 98% Combustion Efficiency) were not applicable because the only gas or gases being vented were Pilot Gas or Purge Gas during the Semi-Annual Period.

Information is provided in the attached *Appendix B: Exceedances of Combustion Efficiency Standards*.

7.3 Summary of Exceedances of Combustion Efficiency Standards

For each Covered Flare, Consent Decree Paragraph 54.f.(4) requires CPChem to provide a summary of exceedances of the emission standards in Paragraphs 43-44 (NHV Standards, 98% Combustion Efficiency). The following information is provided in the attached *Appendix B: Exceedances of Combustion Efficiency Standards*:

- Total number of hours of NHV Standard or 98% Combustion Efficiency exceedances, expressed as both an absolute number and a percentage of time, the Covered Flare was In Operation during the Semi-Annual Period;
- Where the NHV Standard or 98% Combustion Efficiency exceedances were not due to Instrument Downtime (Paragraph 45) or where exceedances were due to Instrument Downtime that exceeded 5% of the operating time during the Semi-Annual Period, details of the periods of exceedances including the date, time, and cause are provided. Where the cause is asserted to be a Malfunction, an explanation and the corrective actions are provided.

7.4 Summary of Compliance Limitations on Flaring and FGRS Availability

Consent Decree Paragraph 54.f.(5) requires CPChem to provide a summary of compliance status during the Semi-Annual Period related to:

- Limitations on flaring at the Port Arthur Plant and Sweeny Plant (Paragraph 36)
- Calculation of the 365-day rolling average flaring limitation (Paragraph 37)
- Cedar Bayou Flare Gas Recovery System (FGRS) compliance requirements (Paragraph 38.c)

7.4.1 Flaring Limitations

Port Arthur Plant

Flare 24 must comply with the hourly and 365-day rolling average flaring limitations in Paragraph 36 no later than June 2, 2023 and June 1, 2024, respectively, as specified in Appendix 1.1.

Therefore, no reporting is required for this Semi-Annual Period.

Sweeny Plant

Flares 10, 12, 14, 20, and 22 must comply with the hourly flaring limitation in Paragraph 36. Required information is provided in the attached *Appendix C: Flaring Limitations and Turnaround Flow Exclusions*.

Compliance with the 365-day rolling average flaring limitation in Paragraph 36 must commence no later than June 2, 2023 as specified in Appendix 1.1. Therefore, no reporting is required for this Semi-Annual Period.

7.4.2 FGRS Availability

The Cedar Bayou FGRS must comply with the compliance requirements in Paragraph 38.c no later than June 30, 2024 as specified in Appendix 1.1.

Therefore, no reporting is required for this Semi-Annual Period.

8.0 ADDITIONAL MATTERS OF INTEREST

Consent Decree Paragraph 54.g requires CPChem to provide information related to additional matters of interest for the Covered Plants.

For this Semi-Annual Period, CPChem has not identified any additional matters of interest that should be brought to the attention of the EPA.

9.0 FENCELINE MONITORING REPORTS

Consent Decree Paragraph 55 requires CPChem to provide Fenceline Monitoring Reports for the Covered Plants.

The Fenceline Monitoring Systems must commence no later than June 2, 2023 as specified in Appendix 2.2. Therefore, no reporting is required for this Semi-Annual Period.

10.0 ANNUAL EMISSIONS DATA

Consent Decree Paragraph 56 requires CPChem to provide the Annual Emissions Data for the prior calendar year in the March Semi-Annual Report for the Covered Plants.

Therefore, no reporting is required for this Semi-Annual Period.

11.0 OTHER NON-COMPLIANCES

Consent Decree Paragraph 57 requires CPChem to provide information related to any non-compliance not otherwise identified in Paragraph 54 for the Covered Plants.

See the attached *Appendix D: Other Non-Compliances* for the required information.

12.0 CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature

Bryan Canfield

Senior Vice President Manufacturing



Date

APPENDIX A: INSTRUMENT DOWNTIME



CEDAR BAYOU PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX A: INSTRUMENT DOWNTIME

In accordance with the Consent Decree Paragraph 54.f.(1)-(2), the information below related to NHV Monitoring Systems Instrument Downtime is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME SUMMARY

Flare ID	CB-701	FS-541	X-901	Z-101	Z-251	Z-1101
Total Hours Flare was In Operation⁽¹⁾ (hrs)	5,112.0	5,112.0	5,112.0	5,112.0	3,736.0	4,442.0
Total Hours of NHV Instrument Downtime (hrs)	45.3	85.3	111.5	198.3	101.8	57.3
Percentage of Total Hours of NHV Instrument Downtime⁽²⁾ (%)	0.9%	1.7%	2.2%	3.9%	2.7%	1.3%

NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME EXCEEDANCE DETAILS

Complete this section only if 5% downtime is exceeded in the Semi-Annual Period as required by Paragraph 54.f.(2).

Flare ID	Monitoring System	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
<p style="text-align: center;">N/A - Instrument Downtime did not exceed 5% during the Semi-Annual Period.</p>							

Notes:

(1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.

(2) Percentage(%) is determined by the "Total Hours NHV Instrument Downtime" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.



**PORT ARTHUR PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX A: INSTRUMENT DOWNTIME**

In accordance with the Consent Decree Paragraph 54.f.(1)-(2), the information below related to NHV Monitoring Systems Instrument Downtime is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME SUMMARY

Flare ID	Flare 24	Flare 40
Total Hours Flare was In Operation⁽¹⁾ (hrs)	5,112.0	5,112.0
Total Hours of NHV Instrument Downtime (hrs)	18.8	33.6
Percentage of Total Hours of NHV Instrument Downtime⁽²⁾ (%)	0.4%	0.7%

NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME EXCEEDANCE DETAILS

Complete this section only if 5% downtime is exceeded in the Semi-Annual Period as required by Paragraph 54.f.(2).

Flare ID	Monitoring System	Monitoring Equipment No.	Downtime Event Type	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
<p style="text-align: center;">N/A - Instrument Downtime did not exceed 5% during the Semi-Annual Period.</p>								

Notes:

(1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.

(2) Percentage(%) is determined by the "Total Hours NHV Instrument Downtime" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.



SWEENEY PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX A: INSTRUMENT DOWNTIME

In accordance with the Consent Decree Paragraph 54.f.(1)-(2), the information below related to NHV Monitoring Systems Instrument Downtime is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME SUMMARY

Flare ID	Flare 10	Flare 12	Flare 14	Flare 20	Flare 22	Flare 4	Flare 8	Flare 9
Total Hours Flare was In Operation⁽¹⁾ (hrs)	5,112.0	219.75	1.75	5,112.0	5,112.0	4,848.0	5,112.0	0.0
Total Hours of NHV Instrument Downtime (hrs)	10.5	0.0	0.0	0.0	64.5	0.0	0.0	0.0
Percentage of Total Hours of NHV Instrument Downtime⁽²⁾ (%)	0.2%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%

NHV MONITORING SYSTEMS INSTRUMENT DOWNTIME EXCEEDANCE DETAILS

Complete this section only if 5% downtime is exceeded in the Semi-Annual Period as required by Paragraph 54.f.(2).

Flare ID	Monitoring System	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - Instrument Downtime did not exceed 5% during the Semi-Annual Period.							

Notes:

(1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.

(2) Percentage(%) is determined by the "Total Hours NHV Instrument Downtime" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.

APPENDIX B: EXCEEDANCES OF COMBUSTION EFFICIENCY STANDARDS



CEDAR BAYOU PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX B: EXCEEDANCES OF COMBUSTION EFFICIENCY STANDARDS

In accordance with the Consent Decree Paragraph 54.f.(3)-(4), the information below related to NHV Standard exceedances is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV STANDARD EXCEEDANCES SUMMARY

Flare ID	CB-701	FS-541	X-901	Z-101	Z-251	Z-1101
Total Hours Flare was In Operation ⁽¹⁾ (hrs)	5,112.0	5,112.0	5,112.0	5,112.0	3,736.0	4,442.0
Total Hours NHV Standards were Not Applicable ⁽²⁾ (hrs)	0.0	0.0	0.0	0.0	1,376.5	670.5
Percentage of Total Hours NHV Standards were Not Applicable ⁽²⁾ (%)	0.0%	0.0%	0.0%	0.0%	36.8%	15.1%
Total Hours of NHV Standard Exceedances (hrs)	12.0	43.8	63.5	63.0	3.8	77.5
Percentage of Total NHV Standard Exceedances ⁽³⁾ (%)	0.2%	0.9%	1.2%	1.2%	0.1%	1.7%

NHV STANDARD EXCEEDANCE DETAILS

Flare ID	NHV Standard	Start Date/Time	Stop Date/Time	Duration (hrs)	Event Cause	Cause Details	Corrective Actions
CB-701	NHVcz	6/5/2022 7:15	6/5/2022 7:45	0.50	Startup	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during startup.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/5/2022 21:15	6/5/2022 21:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/6/2022 12:30	6/6/2022 12:45	0.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
CB-701	NHVcz	6/13/2022 7:15	6/13/2022 7:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/13/2022 20:15	6/13/2022 20:30	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/15/2022 8:45	6/15/2022 9:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/17/2022 13:15	6/17/2022 13:30	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/18/2022 4:30	6/18/2022 4:45	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/18/2022 8:45	6/18/2022 9:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/20/2022 6:30	6/20/2022 6:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/22/2022 1:45	6/22/2022 2:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/23/2022 11:00	6/23/2022 11:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	6/23/2022 13:30	6/23/2022 13:45	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVvg	6/27/2022 10:00	6/27/2022 10:30	0.50	Other	NHVvg below 300 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
CB-701	NHVvg	6/27/2022 11:00	6/27/2022 11:30	0.50	Other	NHVvg below 300 Btu/scf due to an increase in flare header hydrogen and nitrogen.	Operational adjustments were made to resume compliance.
CB-701	NHVcz NHVvg	6/27/2022 11:30	6/27/2022 11:45	0.25	Other	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header hydrogen and nitrogen.	Operational adjustments were made to resume compliance.

CB-701	NHVcz	7/16/2022 17:00	7/16/2022 17:30	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	7/27/2022 2:15	7/27/2022 2:30	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare when the flare header nitrogen increased during GB-201 system maintenance.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	7/27/2022 3:45	7/27/2022 4:00	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare when the flare header nitrogen increased during GB-201 system maintenance.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	7/27/2022 5:00	7/27/2022 5:30	0.50	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare when the flare header nitrogen increased during GB-201 system maintenance.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	7/27/2022 6:45	7/27/2022 7:00	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare when the flare header nitrogen increased during GB-201 system maintenance.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/1/2022 9:45	8/1/2022 10:00	0.25	Shutdown	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/2/2022 17:45	8/2/2022 18:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/6/2022 6:15	8/6/2022 6:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/25/2022 10:15	8/25/2022 10:30	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/25/2022 10:45	8/25/2022 11:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	8/29/2022 13:00	8/29/2022 13:15	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	9/2/2022 11:45	9/2/2022 12:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	9/4/2022 22:30	9/4/2022 22:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	9/7/2022 10:45	9/7/2022 11:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	9/26/2022 21:30	9/26/2022 22:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	10/17/2022 20:30	10/17/2022 20:45	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
CB-701	NHVcz	11/1/2022 17:45	11/1/2022 19:15	1.50	Malfunction	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions. Power was restored and units were brought to a stable state. Operating units were restarted.
CB-701	NHVcz	11/26/2022 9:30	11/26/2022 9:45	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	12/1/2022 12:15	12/1/2022 12:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	12/30/2022 6:45	12/30/2022 7:00	0.25	Startup	NHVcz below 270 Btu/scf due to excess steam to the flare during the startup of the Propylene Compressor.	Operational adjustments were made to resume compliance.
CB-701	NHVcz	12/30/2022 8:45	12/30/2022 9:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
FS-541	NHVcz NHVvg	7/26/2022 11:15	7/26/2022 13:00	1.75	Malfunction	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
FS-541	NHVcz NHVvg	7/26/2022 18:00	7/26/2022 18:15	0.25			
FS-541	NHVcz NHVvg	7/26/2022 20:30	7/26/2022 20:45	0.25			
FS-541	NHVcz NHVvg	7/26/2022 22:15	7/26/2022 22:30	0.25			

FS-541	NHVcz NHVvg	7/27/2022 10:45	7/27/2022 11:00	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	8/5/2022 0:45	8/5/2022 1:00	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	8/9/2022 11:30	8/9/2022 12:00	0.50	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	8/9/2022 12:15	8/9/2022 12:30	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	8/23/2022 1:45	8/23/2022 2:00	0.25	Maintenance	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	8/25/2022 6:45	8/25/2022 8:15	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	8/27/2022 1:45	8/27/2022 2:00	0.25	Maintenance	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	8/27/2022 2:00	8/27/2022 2:15	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	8/27/2022 2:45	8/27/2022 3:00	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	8/31/2022 1:00	8/31/2022 1:45	0.75	Maintenance	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during Train 1 maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	9/5/2022 22:45	9/5/2022 23:15	0.50	Maintenance	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	9/5/2022 23:30	9/5/2022 23:45	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during maintenance activities.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	9/7/2022 14:45	9/7/2022 15:00	0.25	Startup	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during the planned startup of Train 2.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	9/7/2022 15:15	9/7/2022 15:30	0.25	Startup	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during the planned startup of Train 2.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	9/7/2022 16:15	9/7/2022 16:30	0.25	Startup	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen during the planned startup of Train 2.	Operational adjustments were made to resume compliance.
FS-541	NHVvg	10/1/2022 3:00	10/1/2022 3:15	0.25	Shutdown	NHVvg below 300 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	10/1/2022 3:45	10/1/2022 4:00	0.25	Shutdown	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	10/1/2022 4:15	10/1/2022 4:30	0.25	Shutdown	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	10/1/2022 7:30	10/1/2022 7:45	0.25	Shutdown	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	10/1/2022 9:00	10/1/2022 9:15	0.25	Shutdown	NHVcz below 270 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.

FS-541	NHVcz NHVvg	10/1/2022 11:45	10/1/2022 12:00	0.25	Shutdown	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to increased flare header nitrogen during the planned shutdown of Train 1.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	10/16/2022 8:45	10/16/2022 9:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	11/1/2022 15:00	11/1/2022 15:15	0.25	Malfunction	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions. Power was restored and units were brought to a stable state. Operating units were restarted.
FS-541	NHVcz	11/1/2022 15:45	11/1/2022 16:00	0.25			
FS-541	NHVcz	11/1/2022 17:00	11/1/2022 17:15	0.25			
FS-541	NHVcz	11/1/2022 22:15	11/1/2022 22:30	0.25			
FS-541	NHVcz	11/1/2022 23:00	11/1/2022 23:15	0.25			
FS-541	NHVcz	11/2/2022 0:15	11/2/2022 0:30	0.25			
FS-541	NHVcz	11/2/2022 1:00	11/2/2022 1:15	0.25			
FS-541	NHVcz	11/2/2022 2:30	11/2/2022 4:15	1.75			
FS-541	NHVcz	11/2/2022 4:30	11/2/2022 4:45	0.25			
FS-541	NHVcz	11/2/2022 5:00	11/2/2022 5:15	0.25			
FS-541	NHVcz	11/2/2022 6:00	11/2/2022 6:30	0.50			
FS-541	NHVcz	11/2/2022 15:45	11/2/2022 16:00	0.25			
FS-541	NHVcz	11/2/2022 17:30	11/2/2022 17:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	11/2/2022 18:15	11/2/2022 18:45	0.50	Startup	Planned startup of PEU-1796 Train 2 after the 11/1/22 power outage.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	11/2/2022 19:00	11/3/2022 7:00	12.00	Startup	Planned startup of PEU-1796 Train 2 after the 11/1/22 power outage.	Operational adjustments were made to resume compliance.
FS-541	NHVcz	11/4/2022 1:45	11/4/2022 2:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare when the NHVcz alarm was disabled during the reboot of the process automation servers.	Alarm was reactivated and operational adjustments were made to resume compliance.
FS-541	NHVcz	11/4/2022 5:45	11/4/2022 7:15	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare when the NHVcz alarm was disabled during the reboot of the process automation servers.	Alarm was reactivated and operational adjustments were made to resume compliance.
FS-541	NHVcz	11/4/2022 7:30	11/4/2022 8:15	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare when the NHVcz alarm was disabled during the reboot of the process automation servers.	Alarm was reactivated and operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	11/7/2022 2:15	11/7/2022 2:30	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities	Nitrogen decreased and resumed compliance.
FS-541	NHVcz NHVvg	11/11/2022 21:00	11/11/2022 21:15	0.25	Other	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header.	Nitrogen decreased and resumed compliance.
FS-541	NHVvg	11/12/2022 1:45	11/12/2022 2:00	0.25	Other	NHVvg below 300 Btu/scf due to an increase in nitrogen in the flare header.	Nitrogen decreased and resumed compliance.
FS-541	NHVcz	11/26/2022 12:15	11/26/2022 12:30	0.25	Other	NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header.	Nitrogen decreased and resumed compliance.
FS-541	NHVcz NHVvg	12/21/2022 15:30	12/21/2022 15:45	0.25	Other	Planned shutdown of PEU-1796 in preparation for Winter Storm Elliott.	Nitrogen decreased and resumed compliance.
FS-541	NHVcz	12/26/2022 2:00	12/26/2022 2:30	0.50	Other	NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during Winter Storm Elliott.	Nitrogen decreased and resumed compliance.
FS-541	NHVcz	12/26/2022 18:00	12/27/2022 4:30	10.50	Other	NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during Winter Storm Elliott.	Nitrogen decreased and resumed compliance.
FS-541	NHVcz NHVvg	12/30/2022 8:15	12/30/2022 8:30	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	12/30/2022 12:15	12/30/2022 12:30	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities	Operational adjustments were made to resume compliance.

FS-541	NHVcz NHVvg	12/30/2022 13:15	12/30/2022 13:30	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities	Operational adjustments were made to resume compliance.
FS-541	NHVcz NHVvg	12/30/2022 15:45	12/30/2022 16:00	0.25	Maintenance	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities	Operational adjustments were made to resume compliance.
X-901	NHVcz	6/12/2022 22:00	6/12/2022 22:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	7/26/2022 9:00	7/26/2022 9:15	0.25	Malfunction	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
X-901	NHVcz	7/26/2022 15:00	7/26/2022 15:15	0.25			
X-901	NHVcz	7/26/2022 15:30	7/26/2022 16:15	0.75			
X-901	NHVcz	7/27/2022 12:45	7/27/2022 13:00	0.25			
X-901	NHVcz	7/27/2022 18:45	7/27/2022 19:15	0.50			
X-901	NHVcz	7/27/2022 20:00	7/27/2022 20:15	0.25			
X-901	NHVcz	7/27/2022 20:30	7/27/2022 21:00	0.50			
X-901	NHVcz	7/27/2022 21:30	7/27/2022 21:45	0.25			
X-901	NHVcz	7/29/2022 19:15	7/29/2022 19:45	0.50			
X-901	NHVcz	7/29/2022 20:00	7/29/2022 20:45	0.75			
X-901	NHVcz	7/31/2022 18:30	7/31/2022 20:15	1.75			
X-901	NHVcz	7/31/2022 21:45	7/31/2022 22:30	0.75			
X-901	NHVcz	8/9/2022 18:45	8/9/2022 19:30	0.75	Maintenance	NHVcz below 270 Btu/scf due to an increase in nitrogen in the flare header during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	8/15/2022 19:15	8/15/2022 19:30	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	8/24/2022 19:00	8/24/2022 19:45	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	8/29/2022 15:00	8/29/2022 15:15	0.25	Maintenance	NHVcz below 270 Btu/scf excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	8/30/2022 22:00	8/30/2022 22:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/2/2022 20:15	9/2/2022 20:45	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/2/2022 23:00	9/3/2022 0:15	1.25			
X-901	NHVcz	9/3/2022 0:30	9/3/2022 1:00	0.50			
X-901	NHVcz	9/3/2022 1:15	9/3/2022 1:30	0.25			
X-901	NHVcz	9/19/2022 4:30	9/19/2022 4:45	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/25/2022 13:15	9/25/2022 13:30	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/26/2022 8:45	9/26/2022 9:15	0.50	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/26/2022 15:15	9/26/2022 15:30	0.25	Maintenance	NHVcz below 270 Btu/scf due to excess steam to the flare during maintenance activities.	Operational adjustments were made to resume compliance.
X-901	NHVcz	9/27/2022 16:30	9/27/2022 18:00	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	10/7/2022 22:00	10/8/2022 0:45	2.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	11/1/2022 2:15	11/1/2022 2:30	0.25	Malfunction	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions. Power was restored and units were brought to a stable state. Operating units were restarted.
X-901	NHVcz	11/1/2022 22:15	11/2/2022 0:15	2.00			
X-901	NHVcz	11/2/2022 6:00	11/2/2022 6:30	0.50			

X-901	NHVcz	12/25/2022 17:00	12/25/2022 17:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
X-901	NHVcz	12/25/2022 17:30	12/25/2022 17:45	0.25			
X-901	NHVcz	12/25/2022 18:00	12/25/2022 19:00	1.00			
X-901	NHVcz	12/25/2022 19:15	12/25/2022 20:30	1.25			
X-901	NHVcz	12/25/2022 21:00	12/26/2022 0:15	3.25			
X-901	NHVcz	12/26/2022 0:30	12/26/2022 0:45	0.25			
X-901	NHVcz	12/26/2022 1:00	12/26/2022 1:45	0.75			
X-901	NHVcz	12/26/2022 2:15	12/26/2022 2:30	0.25			
X-901	NHVcz	12/26/2022 3:00	12/26/2022 3:15	0.25			
X-901	NHVcz	12/26/2022 3:45	12/26/2022 4:00	0.25			
X-901	NHVcz	12/26/2022 4:30	12/27/2022 9:00	28.50			
X-901	NHVcz	12/27/2022 18:30	12/27/2022 20:15	1.75	Startup	NHVcz below 270 Btu/scf due to excess steam to the flare during purging activities in preparation for startup of PEU-1792 after Winter Storm Elliott.	Operational adjustments were made to resume compliance.
X-901	NHVcz	12/27/2022 21:30	12/27/2022 22:15	0.75			
X-901	NHVcz	12/28/2022 9:30	12/28/2022 10:15	0.75	Startup	Planned startup of PEU-1792 after Winter Storm Elliott.	Operational adjustments were made to resume compliance.
X-901	NHVcz	12/28/2022 11:45	12/28/2022 13:00	1.25			
X-901	NHVcz	12/28/2022 14:15	12/28/2022 15:00	0.75			
X-901	NHVcz	12/28/2022 15:15	12/28/2022 16:30	1.25			
X-901	NHVcz	12/29/2022 15:30	12/29/2022 16:15	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/2/2022 5:30	6/2/2022 5:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/2/2022 7:00	6/2/2022 7:30	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/2/2022 7:45	6/2/2022 8:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/2/2022 15:00	6/2/2022 15:45	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/3/2022 3:30	6/3/2022 4:00	0.50	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	6/3/2022 20:30	6/3/2022 21:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/4/2022 1:45	6/4/2022 2:30	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/4/2022 5:45	6/4/2022 6:00	0.25	Other	Flare NHVcz was too close to compliance limit and dropped below 270 Btu/scf.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/4/2022 15:15	6/4/2022 15:30	0.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	6/6/2022 23:30	6/6/2022 23:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/7/2022 0:15	6/7/2022 1:45	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/10/2022 5:30	6/10/2022 5:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/10/2022 8:30	6/10/2022 8:45	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	6/11/2022 9:15	6/11/2022 9:45	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/11/2022 15:15	6/11/2022 16:00	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/11/2022 22:00	6/11/2022 22:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	6/21/2022 10:45	6/21/2022 11:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	6/29/2022 12:15	6/29/2022 12:45	0.50	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	6/29/2022 15:00	6/29/2022 15:45	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/2/2022 7:30	7/2/2022 8:15	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.

Z-101	NHVcz	7/8/2022 14:30	7/8/2022 14:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/10/2022 16:00	7/10/2022 16:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/12/2022 18:00	7/12/2022 19:30	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/16/2022 22:45	7/17/2022 6:45	8.00	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/17/2022 8:15	7/17/2022 8:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/17/2022 8:45	7/17/2022 10:30	1.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	7/27/2022 10:00	7/27/2022 10:30	0.50	Malfunction	A third-party off-site incident cause an unexpected site-wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
Z-101	NHVcz	7/27/2022 19:45	7/27/2022 20:00	0.25			
Z-101	NHVcz	7/29/2022 10:45	7/29/2022 12:30	1.75			
Z-101	NHVcz	7/30/2022 19:00	7/30/2022 19:45	0.75			
Z-101	NHVcz	7/30/2022 20:00	7/30/2022 20:15	0.25			
Z-101	NHVcz	7/30/2022 23:15	7/30/2022 23:30	0.25			
Z-101	NHVcz	7/31/2022 18:45	7/31/2022 19:30	0.75			
Z-101	NHVcz	8/1/2022 3:00	8/1/2022 3:15	0.25			
Z-101	NHVcz	8/5/2022 4:45	8/5/2022 5:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/5/2022 12:30	8/5/2022 13:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/5/2022 13:45	8/5/2022 14:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/5/2022 14:30	8/5/2022 16:45	2.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/5/2022 21:00	8/5/2022 22:15	1.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/5/2022 22:45	8/5/2022 23:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/6/2022 6:30	8/6/2022 6:45	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/6/2022 8:00	8/6/2022 8:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/6/2022 9:45	8/6/2022 10:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/6/2022 10:45	8/6/2022 11:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/6/2022 14:45	8/6/2022 15:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/6/2022 17:15	8/6/2022 17:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/7/2022 5:45	8/7/2022 6:30	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/7/2022 6:45	8/7/2022 7:30	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/9/2022 6:45	8/9/2022 7:15	0.50	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	8/9/2022 22:45	8/10/2022 0:45	2.00	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 4:00	8/10/2022 4:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 5:30	8/10/2022 6:15	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 7:00	8/10/2022 7:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 9:45	8/10/2022 10:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 13:15	8/10/2022 13:30	0.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	8/10/2022 16:30	8/10/2022 17:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 18:45	8/10/2022 19:30	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/10/2022 20:45	8/10/2022 21:00	0.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/11/2022 1:45	8/11/2022 2:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.

Z-101	NHVcz	8/11/2022 15:45	8/11/2022 16:00	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/11/2022 19:30	8/11/2022 19:45	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/11/2022 20:00	8/11/2022 20:15	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/12/2022 0:45	8/12/2022 1:00	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/12/2022 2:00	8/12/2022 2:15	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	8/12/2022 3:00	8/12/2022 6:45	3.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/13/2022 12:15	8/13/2022 12:45	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/17/2022 18:30	8/17/2022 18:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/17/2022 19:00	8/17/2022 19:30	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/27/2022 20:45	8/27/2022 21:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	8/31/2022 7:15	8/31/2022 8:00	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	10/28/2022 12:45	10/28/2022 13:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	11/1/2022 15:00	11/1/2022 15:15	0.25	Malfunction	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions. Power was restored and units were brought to a stable state. Operating units were restarted.
Z-101	NHVcz	11/1/2022 16:15	11/1/2022 16:30	0.25			
Z-101	NHVcz	11/3/2022 2:15	11/3/2022 2:45	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	11/3/2022 3:00	11/3/2022 3:45	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	11/10/2022 10:15	11/10/2022 10:45	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	11/20/2022 19:00	11/20/2022 20:15	1.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	11/21/2022 7:45	11/21/2022 8:00	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	11/21/2022 13:15	11/21/2022 13:30	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	11/27/2022 9:30	11/27/2022 10:00	0.50	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	11/30/2022 0:45	11/30/2022 1:00	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-101	NHVcz	12/2/2022 13:45	12/2/2022 14:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/3/2022 7:45	12/3/2022 8:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare during period of elevated nitrogen.	Nitrogen decreased and resumed compliance.
Z-101	NHVcz	12/3/2022 8:30	12/3/2022 8:45	0.25			
Z-101	NHVcz	12/3/2022 9:00	12/3/2022 9:30	0.50			
Z-101	NHVcz	12/4/2022 5:45	12/4/2022 6:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/5/2022 12:00	12/5/2022 12:15	0.25	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.

Z-101	NHVcz	12/6/2022 6:45	12/6/2022 7:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/7/2022 6:30	12/7/2022 8:00	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/20/2022 15:30	12/20/2022 16:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/24/2022 16:00	12/24/2022 16:30	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare while performing maintenance activities during Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/26/2022 19:45	12/26/2022 20:00	0.25			
Z-101	NHVcz	12/26/2022 22:00	12/26/2022 22:15	0.25			
Z-101	NHVcz	12/27/2022 5:15	12/27/2022 5:30	0.25			
Z-101	NHVcz	12/27/2022 7:00	12/27/2022 7:45	0.75			
Z-101	NHVcz	12/27/2022 8:00	12/27/2022 8:30	0.50			
Z-101	NHVcz	12/27/2022 8:45	12/27/2022 9:00	0.25			
Z-101	NHVcz	12/27/2022 9:15	12/27/2022 10:15	1.00	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-101	NHVcz	12/27/2022 17:15	12/27/2022 17:45	0.50			
Z-101	NHVcz	12/31/2022 19:45	12/31/2022 20:15	0.50	Other	NHVcz below 270 Btu/scf when the flare flow meter indicated decreased flow.	Flare flow increased and resumed compliance.
Z-251	NHVcz	7/27/2022 6:30	7/27/2022 6:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	11/1/2022 19:15	11/1/2022 19:30	0.25	Malfunction	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions. Power was restored and units were brought to a stable state. Operating units were restarted.
Z-251	NHVcz	11/1/2022 20:15	11/1/2022 21:00	0.75			
Z-251	NHVcz	11/8/2022 5:00	11/8/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	11/29/2022 20:00	11/29/2022 20:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	11/29/2022 21:00	11/29/2022 21:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	12/8/2022 11:30	12/8/2022 12:00	0.50	Other	NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	Nitrogen decreased and resumed compliance.
Z-251	NHVvg NHVcz	12/8/2022 12:00	12/8/2022 12:15	0.25	Other	NHVvg below 300 Btu/scf and NHVcz below 270 Btu/scf due to an increase in flare header nitrogen.	
Z-251	NHVcz	12/24/2022 11:30	12/24/2022 12:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	12/24/2022 13:15	12/24/2022 13:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Z-251	NHVcz	12/28/2022 20:00	12/28/2022 20:15	0.25	Shutdown	NHVcz below 270 Btu/scf due to fuel gas being removed from service in preparation to take the flare out of service.	Flare was removed from service

Notes:

(1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.

(2) NHV standards are not applicable when a Covered Flare is not "In Operation" and only Pilot Gas or Purge Gas is being vented.

Percentage(%) is determined by the "Total Hours NHV Standards were Not Applicable" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.

(3) Percentage(%) is determined by the "Total Hours of NHV Standard Exceedances" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.



**PORT ARTHUR PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX B: EXCEEDANCES OF COMBUSTION EFFICIENCY STANDARDS**

In accordance with the Consent Decree Paragraph 54.f.(3)-(4), the information below related to NHV Standard exceedances is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV STANDARD EXCEEDANCE SUMMARY

Flare ID	Flare 24	Flare 40
Total Hours Flare was In Operation⁽¹⁾ (hrs)	5,112.0	5,112.0
Total Hours NHV Standards were Not Applicable⁽²⁾ (hrs)	0.0	0.0
Percentage of Total Hours NHV Standards were Not Applicable⁽²⁾ (%)	0.0%	0.0%
Total Hours of NHV Standard Exceedances (hrs)	22.3	6.5
Percentage of Total NHV Standard Exceedances⁽³⁾ (%)	0.4%	0.1%

NHV STANDARD EXCEEDANCE DETAILS

Flare ID	NHV Standard	Start Date/Time	Stop Date/Time	Duration (hrs)	Event Cause	Cause Details	Corrective Actions
Flare 24	NHVcz	6/21/2022 21:30	6/22/2022 2:00	4.50	Startup	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/22/2022 2:45	6/22/2022 4:00	1.25	Startup	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/22/2022 5:15	6/22/2022 5:30	0.25	Startup	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/22/2022 6:15	6/22/2022 6:30	0.25	Startup	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/23/2022 4:00	6/23/2022 4:30	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/27/2022 10:00	6/27/2022 11:30	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	6/27/2022 12:15	6/27/2022 14:15	2.00	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/4/2022 5:00	8/4/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/10/2022 5:00	8/10/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/15/2022 5:00	8/15/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/18/2022 5:00	8/18/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/18/2022 10:15	8/18/2022 10:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.

Flare 24	NHVcz	8/23/2022 7:45	8/23/2022 8:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/24/2022 14:30	8/24/2022 15:00	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/29/2022 14:15	8/29/2022 14:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/30/2022 8:45	8/30/2022 9:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/30/2022 21:15	8/30/2022 21:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	8/31/2022 7:15	8/31/2022 7:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/1/2022 6:45	9/1/2022 7:15	0.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/1/2022 20:15	9/1/2022 20:30	0.25	Other	Following an unexpected trip of the Ethylene Refrigerant Compressor, GB-601, a loss of cooling occurred in the Ethylene Unit 1544 resulting in flaring.	The unit was stabilized, returned to normal operating conditions, and ending the event.
Flare 24	NHVcz	9/2/2022 5:00	9/2/2022 5:15	0.25	Other	Following an unexpected trip of the Ethylene Refrigerant Compressor, GB-601, a loss of cooling occurred in the Ethylene Unit 1544 resulting in flaring.	The unit was stabilized, returned to normal operating conditions, and ending the event.
Flare 24	NHVcz	9/6/2022 14:15	9/6/2022 14:30	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/6/2022 18:30	9/6/2022 18:45	0.25	Other	NHVcz below 270 Btu/scf due to a decrease in flare flow.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/10/2022 6:30	9/10/2022 6:45	0.25	Other	A sudden unanticipated malfunction of the pressure transmitter on the Ethylene Fractionator Tower, DA403, caused a process upset resulting in flaring.	The pressure transmitter was repaired and placed back into service. The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	NHVcz	9/10/2022 7:45	9/10/2022 9:15	1.50	Other	A sudden unanticipated malfunction of the pressure transmitter on the Ethylene Fractionator Tower, DA403, caused a process upset resulting in flaring.	The pressure transmitter was repaired and placed back into service. The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	NHVcz	9/17/2022 5:00	9/17/2022 5:15	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/18/2022 0:15	9/18/2022 0:30	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/19/2022 7:30	9/19/2022 7:45	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/26/2022 19:30	9/26/2022 20:15	0.75	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/26/2022 22:00	9/26/2022 22:30	0.50	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/26/2022 22:45	9/26/2022 23:00	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/26/2022 23:30	9/26/2022 23:45	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.

Flare 24	NHVcz	9/27/2022 0:00	9/27/2022 0:15	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/27/2022 0:30	9/27/2022 0:45	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/27/2022 4:30	9/27/2022 4:45	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/27/2022 6:45	9/27/2022 7:00	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	9/28/2022 5:45	9/28/2022 6:00	0.25	Other	NHVcz below 270 Btu/scf due to swings in the fuel gas pressure header and excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	10/8/2022 20:30	10/8/2022 20:45	0.25	Other	NHVcz below 270 Btu/scf due to inaccurate steam flow meter indication during minimal steam conditions causing excess steam to the flare.	Operational adjustments were made to resume compliance. Adjustments were made to the process control logic to provide a more accurate steam flow during minimum steam conditions.
Flare 24	NHVcz	10/10/2022 1:15	10/10/2022 1:45	0.50	Other	NHVcz below 270 Btu/scf due to inaccurate steam flow meter indication during minimal steam conditions causing excess steam to the flare.	Operational adjustments were made to resume compliance. Adjustments were made to the process control logic to provide a more accurate steam flow during minimum steam conditions.
Flare 24	NHVcz	10/10/2022 3:30	10/10/2022 3:45	0.25	Other	NHVcz below 270 Btu/scf due to inaccurate steam flow meter indication during minimal steam conditions causing excess steam to the flare.	Operational adjustments were made to resume compliance. Adjustments were made to the process control logic to provide a more accurate steam flow during minimum steam conditions.
Flare 24	NHVcz	10/12/2022 1:15	10/12/2022 1:30	0.25	Other	NHVcz below 270 Btu/scf due to inaccurate steam flow meter indication during minimal steam conditions causing excess steam to the flare.	Operational adjustments were made to resume compliance. Adjustments were made to the process control logic to provide a more accurate steam flow during minimum steam conditions.
Flare 24	NHVcz	12/27/2022 4:15	12/27/2022 4:45	0.50	Startup	Planned startup of the Ethylene Unit 1544 after Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 24	NHVcz	12/27/2022 7:45	12/27/2022 8:00	0.25	Startup	Planned startup of the Ethylene Unit 1544 after Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/5/2022 18:45	6/5/2022 19:00	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/5/2022 19:30	6/5/2022 19:45	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/8/2022 23:45	6/9/2022 0:00	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/14/2022 1:45	6/14/2022 2:00	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/14/2022 8:15	6/14/2022 8:30	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/14/2022 9:15	6/14/2022 9:30	0.25	Other	NHVcz below 270 Btu/scf due to inadequate natural gas flow when the flow meter exceeded the range.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/21/2022 9:30	6/21/2022 9:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/25/2022 11:30	6/25/2022 12:15	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	6/26/2022 11:45	6/26/2022 13:15	1.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.

Flare 40	NHVcz	8/3/2022 20:45	8/3/2022 22:30	1.75	Maintenance	Planned maintenance activity from PH138	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	8/29/2022 10:15	8/29/2022 10:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	8/30/2022 0:00	8/30/2022 0:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 40	NHVcz	8/31/2022 8:00	8/31/2022 8:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.

Notes:

(1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.

(2) NHV standards are not applicable when a Covered Flare is not "In Operation" and only Pilot Gas or Purge Gas is being vented.

Percentage(%) is determined by the "Total Hours NHV Standards were Not Applicable" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.

(3) Percentage(%) is determined by the "Total Hours of NHV Standard Exceedances" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.



SWEENEY PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX B: EXCEEDANCES OF COMBUSTION EFFICIENCY STANDARDS

In accordance with the Consent Decree Paragraph 54.f.(3)-(4), the information below related to NHV Standard exceedances is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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NHV STANDARD EXCEEDANCES SUMMARY

Flare ID	Flare 10	Flare 12	Flare 14	Flare 20	Flare 22	Flare 4	Flare 8	Flare 9
Total Hours Flare was In Operation⁽¹⁾ (hrs)	5,112.0	219.8	1.8	5,112.0	5,112.0	4,848.0	5,112.0	0.0
Total Hours NHV Standards were Not Applicable⁽²⁾ (hrs)	0.0	0.0	0.0	0.0	0.0	264.0	0.0	0.0
Percentage of Total Hours NHV Standards were Not Applicable⁽²⁾ (%)	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%
Total Hours of NHV Standard Exceedances (hrs)	4.2	0.0	0.0	5.3	0.5	148.5	150.2	0.0
Percentage of Total NHV Standard Exceedances⁽³⁾ (%)	0.1%	0.0%	0.0%	0.1%	0.0%	3.1%	2.9%	0.0%

NHV STANDARD EXCEEDANCE DETAILS

Flare ID	NHV Standard	Start Date/Time	Stop Date/Time	Duration (hrs)	Event Cause	Cause Details	Corrective Actions
Flare 4	NHVcz	6/5/2022 12:45	6/5/2022 13:00	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/2/2022 18:30	7/2/2022 18:45	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/5/2022 8:00	7/5/2022 8:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/8/2022 11:00	7/8/2022 11:15	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/8/2022 11:45	7/8/2022 12:30	0.75	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/12/2022 11:00	7/12/2022 13:30	2.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/18/2022 9:15	7/18/2022 11:45	2.50	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	7/24/2022 9:15	7/24/2022 9:30	0.25	Other	NHVcz below 270 Btu/scf due to excess steam to the flare.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/11/2022 14:15	8/11/2022 14:30	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/11/2022 20:00	8/11/2022 20:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/19/2022 9:00	8/19/2022 9:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/22/2022 23:45	8/23/2022 0:00	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/23/2022 1:30	8/23/2022 2:00	0.50	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/23/2022 2:30	8/23/2022 4:30	2.00	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/23/2022 4:45	8/23/2022 5:30	0.75	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.

Flare 4	NHVcz	8/23/2022 6:00	8/23/2022 7:45	1.75	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/23/2022 10:15	8/23/2022 11:00	0.75	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/24/2022 5:15	8/24/2022 5:30	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/24/2022 6:00	8/24/2022 6:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/24/2022 9:00	8/24/2022 9:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	8/24/2022 9:30	8/24/2022 9:45	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	9/4/2022 9:15	9/4/2022 9:45	0.50	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	9/11/2022 1:00	9/11/2022 1:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	9/12/2022 8:00	9/12/2022 8:15	0.25	Maintenance	De-inventorying NGL Unit 18 in preparation for turnaround.	Operational adjustments were made to resume compliance.
Flare 4	NHVcz	9/27/2022 22:00	9/27/2022 22:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 9:00	9/28/2022 9:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 9:45	9/28/2022 11:00	1.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 11:45	9/28/2022 12:30	0.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 13:15	9/28/2022 14:00	0.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 17:30	9/28/2022 22:15	4.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/28/2022 23:15	9/29/2022 5:45	6.50	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/29/2022 6:15	9/29/2022 8:00	1.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/29/2022 10:45	9/29/2022 11:45	1.00	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/29/2022 14:00	9/29/2022 15:00	1.00	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	9/29/2022 20:15	9/29/2022 23:00	2.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.

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[illegible]

[illegible]

[illegible]

Flare 4	NHVcz	10/14/2022 19:30	10/14/2022 19:45	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/14/2022 21:00	10/14/2022 21:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/14/2022 22:30	10/14/2022 22:45	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/15/2022 10:15	10/15/2022 10:30	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/18/2022 21:00	10/18/2022 21:25	0.41	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/19/2022 6:15	10/19/2022 6:30	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/22/2022 13:00	10/22/2022 13:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	10/24/2022 16:45	10/25/2022 4:30	11.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/1/2022 18:45	11/1/2022 19:00	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/1/2022 19:15	11/2/2022 4:00	8.75	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/4/2022 10:00	11/4/2022 10:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/16/2022 4:30	11/16/2022 4:45	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/16/2022 5:15	11/16/2022 5:30	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/17/2022 11:00	11/17/2022 11:15	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/23/2022 13:15	11/23/2022 13:30	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	11/23/2022 19:30	11/23/2022 19:45	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.

Flare 4	NHVcz	11/24/2022 6:45	11/24/2022 7:00	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	12/22/2022 17:00	12/22/2022 22:15	5.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 4	NHVcz	12/28/2022 2:30	12/28/2022 2:45	0.25	Malfunction	Newly installed flare tip does not perform optimally to continuously meet the NHVcz requirements in Paragraph 43.b.	Operational adjustments were made to resume compliance. Flare tip vendor recommends mechanical modifications. CPChem anticipates completion of this work by September 30, 2023.
Flare 8	NHVcz	6/2/2022 11:45	6/2/2022 12:00	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/2/2022 12:30	6/2/2022 13:00	0.50	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/2/2022 14:00	6/2/2022 14:30	0.50	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/2/2022 15:15	6/2/2022 15:30	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/3/2022 14:00	6/3/2022 14:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/4/2022 12:15	6/4/2022 12:30	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/4/2022 13:30	6/4/2022 13:45	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/5/2022 12:00	6/5/2022 12:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/5/2022 12:30	6/5/2022 13:15	0.75	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/6/2022 12:30	6/6/2022 15:45	3.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/6/2022 16:00	6/6/2022 16:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/7/2022 12:00	6/7/2022 13:30	1.50	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	6/8/2022 12:15	6/8/2022 12:30	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Flare 8	NHVcz	12/12/2022 22:30	12/12/2022 22:45	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/24/2022 1:15	12/24/2022 1:30	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/24/2022 3:00	12/24/2022 3:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/25/2022 1:00	12/25/2022 1:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/28/2022 9:15	12/28/2022 9:45	0.50	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/28/2022 10:30	12/28/2022 11:00	0.50	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/28/2022 13:00	12/28/2022 13:15	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 8	NHVcz	12/28/2022 15:45	12/28/2022 16:00	0.25	Malfunction	Vent gas flow meter unexpectedly began to read erroneously on an intermittent basis and does not continuously meet the monitoring requirements in Paragraph 26.	Flow meter components identified for repair/replacement, installed, and tuning is in progress. CPChem anticipates completion of this work by March 31, 2023.
Flare 10	NHVcz	12/22/2022 18:45	12/22/2022 19:30	0.75	Maintenance	Planned shutdown and maintenance in Ethylene Unit 22 due to Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 10	NHVcz	12/22/2022 20:00	12/22/2022 20:15	0.25	Maintenance	Planned shutdown and maintenance in Ethylene Unit 22 due to Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 10	NHVcz	12/22/2022 21:00	12/22/2022 21:30	0.50	Maintenance	Planned shutdown and maintenance in Ethylene Unit 22 due to Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 10	NHVcz	12/30/2022 23:15	12/30/2022 23:30	0.25	Startup	Planned startup of Ethylene Unit 22 due to Winter Storm Elliott.	Operational adjustments were made to resume compliance.
Flare 10	NHVcz	12/31/2022 21:30	12/31/2022 23:59	2.48	Startup	Planned startup of Ethylene Unit 22 due to Winter Storm Elliott.	Operational adjustments were made to resume compliance.

Flare 22	NHVcz	7/24/2022 5:00	7/24/2022 5:15	0.25	Maintenance	Pressuring and depressuring of dryer to the flare with nitrogen in preparation for a desiccant changeout.	Operational adjustments were made to resume compliance. Modified the Distribution Control System (DCS) control narrative to remove 5 minute filter on data curving.
Flare 22	NHVcz	8/3/2022 9:30	8/3/2022 9:45	0.25	Maintenance	Pressuring and depressuring of dryer to the flare with nitrogen in preparation for a desiccant changeout.	Operational adjustments were made to resume compliance. Modified the flare Distribution Control System (DCS) control narrative to remove 5 minute filter on data curving.
Flare 20	NHVdil	7/30/2022 10:00	7/30/2022 11:45	1.75	Other	NHVdil below 22 Btu/ft2 due to excess air to the flare.	Operational adjustments were made to resume compliance. Flare air blower variable frequency driver (VFD) reliability improvements implemented.
Flare 20	NHVdil	7/30/2022 12:30	7/30/2022 13:00	0.50	Other	NHVdil below 22 Btu/ft2 due to excess air to the flare.	Operational adjustments were made to resume compliance. Flare air blower variable frequency driver (VFD) reliability improvements implemented.
Flare 20	NHVdil	7/30/2022 14:30	7/30/2022 15:00	0.50	Other	NHVdil below 22 Btu/ft2 due to excess air to the flare.	Operational adjustments were made to resume compliance. Flare air blower variable frequency driver (VFD) reliability improvements implemented.
Flare 20	NHVdil	7/31/2022 3:00	7/31/2022 3:45	0.75	Other	NHVdil below 22 Btu/ft2 due to excess air to the flare.	Operational adjustments were made to resume compliance. Flare air blower variable frequency driver (VFD) reliability improvements implemented.
Flare 20	NHVdil	8/6/2022 10:00	8/6/2022 10:15	0.25	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.
Flare 20	NHVdil	8/6/2022 15:15	8/6/2022 15:30	0.25	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.
Flare 20	NHVdil	8/7/2022 6:00	8/7/2022 6:15	0.25	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.
Flare 20	NHVdil	8/8/2022 10:45	8/8/2022 11:00	0.25	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.
Flare 20	NHVdil	8/9/2022 6:00	8/9/2022 6:15	0.25	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.
Flare 20	NHVdil	8/9/2022 14:45	8/9/2022 15:15	0.50	Maintenance	High nitrogen due to pipeline maintenance work	Operational adjustments were made to resume compliance.

Notes:

- (1) "In Operation" means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Covered Flare.
- (2) NHV standards are not applicable when a Covered Flare is not "In Operation" and only Pilot Gas or Purge Gas is being vented. Percentage(%) is determined by the "Total Hours NHV Standards were Not Applicable" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.
- (3) Percentage(%) is determined by the "Total Hours of NHV Standard Exceedances" divided by the "Total Hours Flare was In Operation" during the Semi-Annual Period.

APPENDIX C: FLARING LIMITATIONS AND TURNAROUND FLOW EXCLUSIONS



SWEENEY PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX C: FLARING LIMITATIONS AND TURNAROUND FLOW EXCLUSIONS

In accordance with the Consent Decree Paragraph 54.f.(5), the information below related to any hourly and/or 365-day rolling average flaring flow limit exceedances and Turnaround flow exclusions are included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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HOURLY FLARING LIMITATIONS DETAILS ⁽¹⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 10 Flare 12	9/15/2022 8:00	9/15/2022 9:00	1.00	Planned startup of Ethylene Unit 22	Flare flows reduced and resumed normal operations.
Flare 10 Flare 12	9/15/2022 10:00	9/15/2022 12:00	2.00	Planned startup of Ethylene Unit 22	Flare flows reduced and resumed normal operations
Flare 20	10/13/2022 11:00	10/13/2022 12:00	1.00	Cogen down and Ethylene Unit 24 flaring	Unit was stabilized and resumed normal operations.
Flare 22	12/21/2022 14:00	12/21/2022 15:00	1.00	Planned shutdown of Ethylene Unit 33 in preparation for Winter Storm Elliott	Flare flows reduced after the unit was safely shutdown.
Flare 10 Flare 12 Flare 20	12/22/2022 8:00	12/22/2022 10:00	2.00	Planned shutdown of Ethylene Unit 22 and Ethylene Unit 24 in preparation for Winter Storm Elliott	Flare flows reduced after the unit was safely shutdown.
Flare 20	12/26/2022 22:00	12/27/2022 0:00	2.00	Planned startup of Ethylene Unit 24 after Winter Storm Elliott	Flare flows reduced after the unit resumed normal operations
Flare 20	12/27/2022 1:00	12/27/2022 2:00	1.00	Planned startup of Ethylene Unit 24 after Winter Storm Elliott	Flare flows reduced after the unit resumed normal operations
Flare 22	12/28/2022 7:00	12/28/2022 13:00	6.00	Planned startup of Ethylene Unit 33 after Winter Storm Elliott	Flare flows reduced after the unit resumed normal operations
Flare 10 Flare 12	12/31/2022 14:00	12/31/2022 16:00	2.00	Planned startup of Ethylene Unit 22 after Winter Storm Elliott	Flare flows reduced after the unit resumed normal operations

Notes:

(1) Flaring limit exceedances specified in Paragraphs 36-37 during the Semi-Annual Period.

APPENDIX D: OTHER NON-COMPLIANCES



**CEDAR BAYOU PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX D: OTHER NON-COMPLIANCES**

In accordance with the Consent Decree Paragraph 57, the information below related to other compliance requirements is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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VISIBLE EMISSIONS EXCEEDANCES ⁽¹⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
CB-701	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
CB-701	12/23/2022 6:20	12/23/2022 6:42	0.37	Scheduled shutdown of ethylene units EU-1592 and EU-1594 due to the prolonged freezing temperatures.	Unit procedures were used to minimize emissions.
CB-701	12/23/2022 6:50	12/23/2022 7:30	0.67		
CB-701	12/23/2022 7:34	12/23/2022 7:42	0.13		
CB-701	12/23/2022 8:30	12/23/2022 8:56	0.43		
CB-701	12/23/2022 9:06	12/23/2022 10:14	1.13		
CB-701	12/23/2022 10:21	12/23/2022 11:08	0.78		
CB-701	12/23/2022 11:11	12/23/2022 11:46	0.58		
CB-701	12/23/2022 11:57	12/23/2022 12:58	1.02		
CB-701	12/23/2022 13:04	12/23/2022 13:18	0.23		
CB-701	12/23/2022 13:24	12/23/2022 13:46	0.37		
CB-701	12/23/2022 13:48	12/23/2022 14:07	0.32		
CB-701	12/23/2022 14:11	12/23/2022 16:12	2.02		
CB-701	12/23/2022 16:21	12/23/2022 17:41	1.33		
FS-541	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
X-901	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
X-901	11/1/2022 15:04	11/1/2022 15:57	0.88	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units were repaired and restarted.

Z-101	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
Z-101	12/23/2022 6:30	12/23/2022 10:40	4.17	Visible emissions occurred during shutdown activities associated with Winter Storm Elliot.	The prolonged freezing temperatures impacted the steam supply to the flare. Steam was added to the flare as available to reduce visible emissions.
Z-101	12/23/2022 11:14	12/23/2022 12:37	1.38		
Z-101	12/24/2022 11:08	12/24/2022 11:27	0.32		
Z-101	12/24/2022 12:05	12/24/2022 13:41	1.60		
Z-101	12/24/2022 16:46	12/24/2022 16:58	0.20		
Z-251	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
Z-251	12/23/2022 10:00	12/23/2022 11:11	1.18	Visible emissions occurred during shutdown activities associated with Winter Storm Elliot.	The prolonged freezing temperatures impacted the steam supply to the flare. Steam was added to the flare as available to reduce visible emissions.
Z-251	12/23/2022 12:56	12/23/2022 15:32	2.60		
Z-251	12/23/2022 15:43	12/23/2022 15:54	0.18		
Z-251	12/23/2022 15:59	12/23/2022 17:45	1.77		
Z-1101	7/26/2022 9:10	7/27/2022 0:00	14.83	A third-party off-site incident caused an unexpected site wide power loss which resulted in upset emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units made repairs and were restarted.
Z-1101	12/23/2022 6:55	12/23/2022 7:52	0.95	Visible emissions occurred during shutdown activities associated with Winter Storm Elliot.	The prolonged freezing temperatures impacted the steam supply to the flare. Steam was added to the flare as available to reduce visible emissions.
Z-1101	12/23/2022 8:48	12/23/2022 8:52	0.07		
Z-1101	12/23/2022 8:54	12/23/2022 8:57	0.05		
Z-1101	12/23/2022 9:22	12/23/2022 9:24	0.03		
Z-1101	12/23/2022 9:35	12/23/2022 10:21	0.77		
Z-1101	12/23/2022 10:53	12/23/2022 10:54	0.02		
Z-1101	12/23/2022 11:02	12/23/2022 11:15	0.22		
Z-1101	12/24/2022 11:18	12/24/2022 11:35	0.28		
Z-1101	12/24/2022 11:50	12/24/2022 13:51	2.02		

VIDEO CAMERA MONITORING SYSTEM DOWNTIME ⁽²⁾

Flare ID	CB-701	FS-541	X-901	Z-101	Z-251	Z-1101	CB-710	FS-9006
Total Hours Flare was In Operation (hrs)	5,112.0	5,112.0	5,112.0	5,112.0	3,736.0	4,442.0	5,090.0	5,112.0
Total Hours of Flare Video Camera Downtime (hrs)	1.1	0.7	0.7	1.2	1.2	1.2	1.3	0.7
Percentage of Total Hours of Flare Video Camera Downtime (%)	0.02%	0.01%	0.01%	0.02%	0.03%	0.03%	0.02%	0.01%

No Video Camera Monitoring System exceeded 5% downtime during the Semi-Annual Period.

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (mins)	Cause Details	Corrective Actions
CB-701	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
CB-701	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
CB-701	Malfunction	11/1/2022 15:04	11/1/2022 15:11	7.00	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
CB-701	Malfunction	11/1/2022 15:11	11/1/2022 16:03	51.50		
CB-701	Other	11/16/2022 19:59	11/16/2022 20:03	3.25	Loss of stored images	Server resumed storing images
FS-541	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
FS-541	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
FS-541	Malfunction	11/1/2022 15:04	11/1/2022 15:11	6.50	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
FS-541	Malfunction	11/1/2022 15:11	11/1/2022 15:36	24.75		
FS-541	Other	11/16/2022 2:58	11/16/2022 2:59	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 3:19	11/16/2022 3:20	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 3:40	11/16/2022 3:41	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 4:01	11/16/2022 4:02	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 4:11	11/16/2022 4:12	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 4:30	11/16/2022 4:30	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 4:40	11/16/2022 4:40	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 4:49	11/16/2022 4:50	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 5:20	11/16/2022 5:20	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 5:31	11/16/2022 5:31	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 6:47	11/16/2022 6:48	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 7:31	11/16/2022 7:32	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 7:42	11/16/2022 7:42	0.25	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
FS-541	Other	11/16/2022 22:27	11/16/2022 22:28	0.25	Loss of stored images	Server resumed storing images
X-901	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
X-901	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images

X-901	Malfunction	11/1/2022 15:04	11/1/2022 15:11	6.50	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
X-901	Malfunction	11/1/2022 15:11	11/1/2022 15:36	24.75		
X-901	Other	11/16/2022 19:59	11/16/2022 20:03	3.25	Loss of stored images	Server resumed storing images
Z-101	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
Z-101	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
Z-101	Malfunction	11/1/2022 15:04	11/1/2022 15:11	7.00	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
Z-101	Malfunction	11/1/2022 15:11	11/1/2022 16:03	51.50		
Z-101	Other	11/16/2022 19:59	11/16/2022 20:03	3.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 2:58	11/16/2022 2:59	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 3:19	11/16/2022 3:20	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 3:40	11/16/2022 3:41	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 4:01	11/16/2022 4:02	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 4:11	11/16/2022 4:12	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 4:30	11/16/2022 4:30	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 4:40	11/16/2022 4:40	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 4:49	11/16/2022 4:50	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 5:20	11/16/2022 5:20	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 5:31	11/16/2022 5:31	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 6:47	11/16/2022 6:48	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 7:31	11/16/2022 7:32	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 7:42	11/16/2022 7:42	0.25	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
Z-101	Other	11/16/2022 22:27	11/16/2022 22:28	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
Z-251	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
Z-251	Malfunction	11/1/2022 15:04	11/1/2022 15:11	7.00	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
Z-251	Malfunction	11/1/2022 15:11	11/1/2022 16:03	51.50		
Z-251	Other	11/16/2022 19:59	11/16/2022 20:03	3.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 2:58	11/16/2022 2:59	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 3:19	11/16/2022 3:20	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 3:40	11/16/2022 3:41	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 4:01	11/16/2022 4:02	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 4:11	11/16/2022 4:12	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 4:30	11/16/2022 4:30	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 4:40	11/16/2022 4:40	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 4:49	11/16/2022 4:50	0.25	Loss of stored images	Server resumed storing images

Z-251	Other	11/16/2022 5:20	11/16/2022 5:20	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 5:31	11/16/2022 5:31	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 6:47	11/16/2022 6:48	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 7:31	11/16/2022 7:32	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 7:42	11/16/2022 7:42	0.25	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
Z-251	Other	11/16/2022 22:27	11/16/2022 22:28	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
Z-1101	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
Z-1101	Malfunction	11/1/2022 15:04	11/1/2022 15:11	7.00	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
Z-1101	Malfunction	11/1/2022 15:11	11/1/2022 16:03	51.50		
Z-1101	Other	11/16/2022 19:59	11/16/2022 20:03	3.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 2:58	11/16/2022 2:59	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 3:19	11/16/2022 3:20	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 3:40	11/16/2022 3:41	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 4:01	11/16/2022 4:02	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 4:11	11/16/2022 4:12	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 4:30	11/16/2022 4:30	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 4:40	11/16/2022 4:40	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 4:49	11/16/2022 4:50	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 5:20	11/16/2022 5:20	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 5:31	11/16/2022 5:31	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 6:47	11/16/2022 6:48	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 7:31	11/16/2022 7:32	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 7:42	11/16/2022 7:42	0.25	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
Z-1101	Other	11/16/2022 22:27	11/16/2022 22:28	0.25	Loss of stored images	Server resumed storing images
CB-710	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
CB-710	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
CB-710	Malfunction	11/1/2022 15:04	11/1/2022 15:14	10.75	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
CB-710	Malfunction	11/1/2022 15:15	11/1/2022 16:12	57.00		
CB-710	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
FS-9006	Other	9/21/2022 20:07	9/21/2022 20:09	1.50	Loss of stored images	Server resumed storing images
FS-9006	Other	10/19/2022 19:53	10/19/2022 19:56	3.75	Loss of stored images	Server resumed storing images
FS-9006	Malfunction	11/1/2022 15:04	11/1/2022 15:11	6.50	Unexpected site-wide power loss which resulted in upset flaring emissions.	The site took actions to minimize emissions during the power loss. Power was restored and units were brought to a stable state. Operating units
FS-9006	Malfunction	11/1/2022 15:11	11/1/2022 15:36	24.75		

FS-9006	Other	11/16/2022 2:58	11/16/2022 2:59	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 3:19	11/16/2022 3:20	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 3:40	11/16/2022 3:41	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 4:01	11/16/2022 4:02	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 4:11	11/16/2022 4:12	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 4:30	11/16/2022 4:30	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 4:40	11/16/2022 4:40	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 4:49	11/16/2022 4:50	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 5:20	11/16/2022 5:20	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 5:31	11/16/2022 5:31	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 6:47	11/16/2022 6:48	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 7:31	11/16/2022 7:32	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 7:42	11/16/2022 7:42	0.25	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 19:59	11/16/2022 20:02	3.00	Loss of stored images	Server resumed storing images
FS-9006	Other	11/16/2022 22:27	11/16/2022 22:28	0.25	Loss of stored images	Server resumed storing images

PILOT FLAME PRESENCE/MONITORING SYSTEM DOWNTIME ⁽³⁾

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.						

FLARE TIP VELOCITY NON-COMPLIANCES ⁽⁴⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.					

INSTRUMENTATION AND MONITORING SYSTEMS: MONITORING, CALIBRATION, INSPECTIONS, QA/QC, AND MAINTENANCE NON-COMPLIANCES⁽⁵⁾

Flare ID	Requirement	Monitoring System	Start Date	Stop Date	Cause Details	Corrective Actions
CB-701	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.
FS-541	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.
X-901	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.
Z-101	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.
Z-251	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.
Z-1101	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i)	New calibration gases ordered from vendor. The Company anticipates compliance to be achieved no later than May 31, 2023.

REPORT AND PLAN NON-COMPLIANCES ⁽⁶⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.					

PERMITTING NON-COMPLIANCES ⁽⁷⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.					

Notes:

- (1) Events when visible emissions are observed for more than 5 minutes during any 2 consecutive hour period from a Covered Flare as required by Paragraph 39.b. during the Semi-Annual Period.
- (2) Events when the video camera monitoring system was not operational and recording for a Covered Flare as required by Paragraphs 21 and 26 during the Semi-Annual Period.
- (3) Events when the pilot flame was not present or the pilot flame monitoring device(s) were incapable of continuously detecting the pilot flame for a Covered Flare as required by Paragraph 39.c. during the Semi-Annual Period.
- (4) Events when the flare tip velocity requirements for a Covered Flare as specified in Paragraph 40 were not met during the Semi-Annual Period.
- (5) Events when the instrumentation and monitoring system requirements for a Covered Flare as specified in Paragraphs 24 and 26 were not met during the Semi-Annual Period.
- (6) Events when the reports or plans for a Covered Flare as required by Paragraphs 17, 28-30, and 54 did not meet the requirements during the Semi-Annual Period.
- (7) Events when the permit applications for a Covered Flare as required by Paragraph 49 did not meet the requirements during the Semi-Annual Period.



**PORT ARTHUR PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX D: OTHER NON-COMPLIANCES**

In accordance with the Consent Decree Paragraph 57, the information below related to other compliance requirements is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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VISIBLE EMISSIONS EXCEEDANCES ⁽¹⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 24	6/19/2022 7:25	6/19/2022 9:24	1.98	A duck flew into the off-site, third-party owned power substation causing a power loss and causing a process unit shutdown that resulted in flaring.	Third-party restored power to the site as soon as possible.
Flare 24	6/22/2022 12:52	6/22/2022 14:51	1.98	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	6/22/2022 15:03	6/22/2022 17:02	1.98	Planned startup of the Ethylene Unit 1544 after the 6/19/22 power outage caused by a third-party provider.	Operational adjustments were made to resume compliance.
Flare 24	9/1/2022 13:55	9/1/2022 15:54	1.98	Following an unexpected trip of the Ethylene Refrigerant Compressor, GB-601, a loss of cooling occurred in the Ethylene Unit 1544 resulting in flaring.	The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	9/9/2022 12:15	9/9/2022 14:14	1.98	A sudden unanticipated malfunction of the pressure transmitter on the Ethylene Fractionator Tower, DA403, caused a process upset resulting in flaring.	The pressure transmitter was repaired and placed back into service. The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	9/9/2022 14:25	9/9/2022 16:24	1.98	A sudden unanticipated malfunction of the pressure transmitter on the Ethylene Fractionator Tower, DA403, caused a process upset resulting in flaring.	The pressure transmitter was repaired and placed back into service. The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	9/9/2022 17:25	9/9/2022 19:24	1.98	A sudden unanticipated malfunction of the pressure transmitter on the Ethylene Fractionator Tower, DA403, caused a process upset resulting in flaring.	The pressure transmitter was repaired and placed back into service. The unit was stabilized, returned to normal operating conditions, and ended the event.
Flare 24	11/5/2022 15:42	11/5/2022 17:51	2.15	Exchangers EA-405A/B were bypassed due to a controller that failed closed. This resulted in off-test product to be flared.	The failed controller was hand-jacked open to force flow through the exchangers and ended the event.
Flare 40	6/19/2022 7:25	6/19/2022 9:24	1.98	A duck flew into the off-site, third-party owned power substation causing a power loss and causing a process unit shutdown that resulted in flaring.	Third-party restored power to the site as soon as possible.
Flare 40	8/1/2022 9:48	8/1/2022 11:47	1.98	During a maintenance activity, the flare smoked intermittently.	Operational adjustments were made to resume compliance.
Flare 40	12/26/2022 10:50	12/26/2022 12:49	1.98	Planned startup of the Cyclohexane Unit 1741 after Winter Storm Elliott.	Operational adjustments were made to resume compliance.

VIDEO CAMERA MONITORING SYSTEM DOWNTIME ⁽²⁾

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.						

PILOT FLAME PRESENCE/MONITORING SYSTEM DOWNTIME ⁽³⁾

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 24	Malfunction	6/19/2022 7:30	6/19/2022 10:00	2.50	A duck flew into the off-site, third-party owned power substation causing a power loss and causing a process unit shutdown that resulted in flaring.	Third-party restored power to the site as soon as possible.
Flare 40	Malfunction	6/19/2022 7:15	6/19/2022 9:30	2.25	A duck flew into the off-site, third-party owned power substation causing a power loss and causing a process unit shutdown that resulted in flaring.	Third-party restored power to the site as soon as possible.

FLARE TIP VELOCITY NON-COMPLIANCES ⁽⁴⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - No events occurred during the Semi-Annual Period.					

INSTRUMENTATION AND MONITORING SYSTEMS: MONITORING, CALIBRATION, INSPECTIONS, QA/QC, AND MAINTENANCE NON-COMPLIANCES ⁽⁵⁾

Flare ID	Requirement	Monitoring System	Start Date	Stop Date	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.						

REPORT AND PLAN NON-COMPLIANCES ⁽⁶⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events occurred during the Semi-Annual Period.					

PERMITTING NON-COMPLIANCES ⁽⁷⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events occurred during the Semi-Annual Period.					

Notes:

- (1) Events when visible emissions are observed for more than 5 minutes during any 2 consecutive hour period from a Covered Flare as required by Paragraph 39.b. during the Semi-Annual Period.
- (2) Events when the video camera monitoring system was not operational and recording for a Covered Flare as required by Paragraphs 21 and 26 during the Semi-Annual Period.
- (3) Events when the pilot flame was not present or the pilot flame monitoring device(s) were incapable of continuously detecting the pilot flame for a Covered Flare as required by Paragraph 39.c. during the Semi-Annual Period.
- (4) Events when the flare tip velocity requirements for a Covered Flare as specified in Paragraph 40 were not met during the Semi-Annual Period.
- (5) Events when the instrumentation and monitoring system requirements for a Covered Flare as specified in Paragraphs 24 and 26 were not met during the Semi-Annual Period.
- (6) Events when the reports or plans for a Covered Flare as required by Paragraphs 17, 28-30, and 54 did not meet the requirements during the Semi-Annual Period.
- (7) Events when the permit applications for a Covered Flare as required by Paragraph 49 did not meet the requirements during the Semi-Annual Period.



SWEENEY PLANT
CONSENT DECREE SEMI-ANNUAL REPORT
APPENDIX D: OTHER NON-COMPLIANCES

In accordance with the Consent Decree Paragraph 57, the information below related to other compliance requirements is included in the Semi-Annual Report.

Semi-Annual Period:	June 2, 2022 - December 31, 2022
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VISIBLE EMISSIONS EXCEEDANCES ⁽¹⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 14	12/22/2022 0:00	12/27/2022 23:59	143.98	Flare smoked in excess of 5 minutes intermittently during the shutdown and startup of Ethylene Unit 24 for Winter Storm Elliott.	The unit was started up and the smoking ceased ending the event.
Flare 20	12/22/2022 0:00	12/27/2022 23:59	143.98	Flare smoked in excess of 5 minutes intermittently during the shutdown and startup of Ethylene Unit 24 for Winter Storm Elliott.	The unit was started up and the smoking ceased ending the event.

VIDEO CAMERA MONITORING SYSTEM DOWNTIME ⁽²⁾

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
N/A - No events to report during the Semi-Annual Period.						

PILOT FLAME PRESENCE/MONITORING SYSTEM DOWNTIME ⁽³⁾

Flare ID	Event Cause	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 10	Other	9/24/2022 9:00	9/24/2022 9:28	0.47	Flare pilot outage	Flare pilot was re-lit

FLARE TIP VELOCITY NON-COMPLIANCES ⁽⁴⁾

Flare ID	Start Date/Time	Stop Date/Time	Duration (hrs)	Cause Details	Corrective Actions
Flare 20	12/22/2022 8:00	12/22/2022 10:00	2.00	Ethylene Unit 24 planned shutdown and startup activities for Winter Storm Elliott.	Flare flows reduced after the unit resumed normal operations
Flare 20	12/26/2022 22:00	12/27/2022 0:00	2.00	Ethylene Unit 24 planned shutdown and startup activities for Winter Storm Elliott.	Flare flows reduced after the unit resumed normal operations
Flare 20	12/27/2022 1:00	12/27/2022 2:00	1.00	Ethylene Unit 24 planned shutdown and startup activities for Winter Storm Elliott.	Flare flows reduced after the unit resumed normal operations

INSTRUMENTATION AND MONITORING SYSTEMS: MONITORING, CALIBRATION, INSPECTIONS, QA/QC, AND MAINTENANCE NON-COMPLIANCES ⁽⁵⁾

Flare ID	Requirement	Monitoring System	Start Date	Stop Date	Cause Details	Corrective Actions
Flare 4	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.
Flare 8	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.
Flare 9	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.
Flare 10	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPChem anticipates completion of this work by May 31, 2023.

Flare 12	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPCChem anticipates completion of this work by May 31, 2023.
Flare 14	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPCChem anticipates completion of this work by May 31, 2023.
Flare 20	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPCChem anticipates completion of this work by May 31, 2023.
Flare 22	Calibration	GC Analyzer	6/2/2022	On-going	Gas chromatographs used to determine the Vent Gas NHV do not meet the calibration gas requirements as specified in Paragraph 24.c. and §63.671(e)(2)(i).	Existing calibrations gases will continue to be used until the new calibration gases are received. New calibration gases ordered from vendor. CPCChem anticipates completion of this work by May 31, 2023.
Flare 4	Monitoring	Purge Gas Flow	6/2/2022	6/30/2022	Flare stack purge gas line was not capable of continuously monitoring and recording the flow rate, temperature, and pressure as required in Paragraph 19.a.	Flare stack purge gas line was blocked in.
Flare 8	Monitoring	Purge Gas Flow	6/2/2022	7/15/2022	Flare stack purge gas line was not capable of continuously monitoring and recording the flow rate and pressure as required in Paragraph 19.a.	Pressure indicator installed on the flare stack gas purge line. Flow measurement continuously monitored and corrected to standard conditions in the Distribution Control System (DCS) and recorded as required.
Flare 10	Monitoring	Purge Gas Flow	6/2/2022	6/30/2022	Flare stack purge gas line was not capable of continuously monitoring and recording the flow rate, temperature, and pressure as required in Paragraph 19.a.	Flare stack purge gas line was blocked in.
Flare 14	Monitoring	Purge Gas Flow	7/10/2022	7/19/2022	Flare stack purge gas line was not capable of continuously monitoring and recording the flow rate and pressure as required in Paragraph 19.a.	Pressure indicator installed on the flare stack gas purge line. Flow measurement continuously monitored and corrected to standard conditions in the Distribution Control System (DCS) and recorded as required.
Flare 22	Monitoring	Purge Gas Flow	6/2/2022	6/29/2022	Flare stack purge gas line was not capable of continuously monitoring and recording the flow rate, temperature, and pressure as required in Paragraph 19.a.	Flare stack purge gas line was blocked in.

REPORT AND PLAN NON-COMPLIANCES ⁽⁶⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events occurred during the Semi-Annual Period.					

PERMITTING NON-COMPLIANCES ⁽⁷⁾

Flare ID	Report/Plan	Report/Plan Due Date	Report/Plan Submission Date	Cause Details	Corrective Actions
N/A - No events occurred during the Semi-Annual Period.					

Notes:

- (1) Events when visible emissions are observed for more than 5 minutes during any 2 consecutive hour period from a Covered Flare as required by Paragraph 39.b. during the Semi-Annual Period.
- (2) Events when the video camera monitoring system was not operational and recording for a Covered Flare as required by Paragraphs 21 and 26 during the Semi-Annual Period.
- (3) Events when the pilot flame was not present or the pilot flame monitoring device(s) were incapable of continuously detecting the pilot flame for a Covered Flare as required by Paragraph 39.c. during the Semi-Annual Period.
- (4) Events when the flare tip velocity requirements for a Covered Flare as specified in Paragraph 40 were not met during the Semi-Annual Period.
- (5) Events when the instrumentation and monitoring system requirements for a Covered Flare as specified in Paragraphs 24 and 26 were not met during the Semi-Annual Period.
- (6) Events when the reports or plans for a Covered Flare as required by Paragraphs 17, 28-30, and 54 did not meet the requirements during the Semi-Annual Period.
- (7) Events when the permit applications for a Covered Flare as required by Paragraph 49 did not meet the requirements during the Semi-Annual Period.